| Inde | ex of C | Claims |  |
|------|---------|--------|--|
|      |         |        |  |

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10/662,950

HEINRICH ET AL.

Reexamination

Applicant(s)/Patent under

Examiner

Art Unit

Scott Au

2635

| <b>√</b> | Rejected |
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| =        | Allowed  |

(Through numeral) Cancelled

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Interference

Appeal Α 0 Objected

|              |  | Ц.               | <u> </u> | _            |          |  | J  |   | _  | 1            |   |
|--------------|--|------------------|----------|--------------|----------|--|--|---|--|--------------|---|
|              |  | Т                |          |              |          | _  |  |   |  |              | 7 |
| Cla          | aim  | <del> </del>     |          | ,            |          | Dat  | e  | _   | ,  | ,            | 1 |
| Final        | Original   | 30/3/2           |          |              |          |  |  |   |  |              |   |
|              | 1  | -                | Т        |              | 1        | T  | 1  | $\vdash$  |  | 1            | 1 |
|              | 1<br>2<br>3<br>4<br>5<br>6                         | -                |          | T            | T        | T  | ╁  | ┢   | T  | T            | 1 |
|              | 3  | -                | Г        | 1            | T        | 1  |  | †   | 1  | 1            | 1 |
|              | 4  | -                |          |              | Т        | T  |  | Т   |  |              | 1 |
|              | 5  | _                |          | ·            | 1        |  | Т  | $\top$  |  | 1            | 1 |
|              | 6  | _                |          | T            |          | T  | Τ  | T   | Ī  | T            | 1 |
|              | 7  | _                |          | Г            | T        | Г  | Τ  | Τ   | Т  |              | 1 |
|              | 8  | _                |          |              | П        |  |  |   | П  |              | 1 |
|              | 9  | -                |          |              |          |  |  |   |  |              |   |
|              | 10   | -                |          |              |          |  |  |   |  |              | ] |
|              | 11   | <u> </u>         |          |              |          |  | L  |   |  |              | ] |
|              | 12   | -                |          |              |          |  |  |   |  |              |   |
|              | 13   | _                |          | $\Box$       | L        | 匚  | 匚  |   | $\Box$   | $\Box$       |   |
|              | 14   |                  |          | _            |          |  |  | Ĺ   |  |              |   |
| L            | 11<br>12<br>13<br>14<br>15<br>16<br>17<br>18<br>19 |                  |          | _            |          | _  | _  |   |  |              | 1 |
| igwdown      | 16   | =                |          | ╙            |          | _  | <u> </u>   | <u> </u>  | <u> </u>   | <u> </u>     |   |
|              | 17   |                  |          | <u> </u>     | $\perp$  | _  | ļ  | _   | <u> </u>   | Ļ.           | 1 |
| $oxed{oxed}$ | 18   | ~                | _        | <u> </u>     |          | <u> </u>   | <u> </u>   | L   | _  | L            | 1 |
| L            | 19   | ~                | _        | L            | _        | <u> </u>   | <u> </u>   | <u> </u>  | _  | <u> </u>     | 1 |
|              | 20   | 4                | _        | _            | ┡        | <b> </b> _                                       | <u> </u>   | ┞_  | <u> </u>   | <u> </u>     | 1 |
|              | 21   | 1                |          | <u> </u>     | ┞        | ⊢  | -  | ļ.  | <b>├</b>   | ļ            | 1 |
| <u> </u>     | 21<br>22<br>23<br>24<br>25<br>26                   | 1                | _        | ـــ          | -        | <u> </u>   |  | ┡   | ├_   | <u> </u>     | l |
| <u> </u>     | 23   | V,               | <u> </u> | ┝            | ├-       | -  | ⊢  | ├   | ┝  | <u> </u>     | ļ |
|              | 24   | 1                | _        | <del> </del> | -        | ⊢  | ⊢  | -   | ├  | -            | 1 |
|              | 25   | 4                |          |              | ⊢        | -  | ⊢  | ⊢   | ├-   | <del> </del> | ł |
|              | 27   | Y                |          | ├            | ⊢        | -  | ╁┈   | ⊢   | ├-   | -            | ł |
|              | 27<br>28<br>29                                     | <b>Y</b>         |          | ├            | ╢        | $\vdash$   | ├  | $\vdash$  | H  | -            | 1 |
|              | 20   | 1                |          | $\vdash$     | $\vdash$ | ┝  | ╁  |   | -  | -            | ł |
|              | 30   | 7                | •        | ╁            | ┢        | -  | -  |   | ┝  | ╌            | ł |
| H            | 31   | <del>  Y  </del> |          | $\vdash$     | -        | $\vdash$   | +-   | $\vdash$  | $\vdash$   | -            | 1 |
|              | 32   | 7                |          | ╁            | $\vdash$ | ├-   | <del>  -</del>                                   | $\vdash$  | -  | ╁            | 1 |
|              | 32<br>33   | 1                | _        | _            | H        | <del>                                     </del> | <del>                                     </del> | $\vdash$  | <del> </del>                                     |              | 1 |
|              | 34   | . 7              | _        | $\vdash$     | $\vdash$ | <del>                                     </del> | Н  | $\vdash$  | $\vdash$   | $\vdash$     | 1 |
|              | 35   | .7               | _        |              | $\vdash$ | <del>                                     </del> | 1  | $t^-$   | $\vdash$   | $\vdash$     | 1 |
|              | 35<br>36   | ./               |          |              | T        | 1  |  | t   | <del>                                     </del> | $\vdash$     | ĺ |
|              | 37   |                  |          |              | $\vdash$ | $\vdash$   | Т  | <del>                                     </del>  | T  | $\vdash$     | ١ |
|              | 38   |                  |          |              |          | $\vdash$   |  |   |  |              |   |
|              | 39   |                  | _        |              | Γ        | <u> </u>   |  | Γ   | Γ  |              | İ |
|              | 40   |                  |          |              |          |  |  |   |  |              |   |
|              | 41   |                  |          |              |          |  |  |   |  |              |   |
|              | 42   |                  |          |              |          |  |  |   |  |              | l |
| ]            | 43   |                  |          |              |          |  |  |   |  |              |   |
|              | 44   |                  | ·        |              |          |  |  |   |  |              | Ì |
|              | 45   |                  |          |              |          |  |  |   |  |              |   |
|              | 46   |                  |          |              | _        |  |  |   |  |              |   |
|              | 47   |                  |          |              | L        |  | Ш  | ш   |  | Ш            |   |
|              | 48   |                  | _        |              |          |  | L_   | Ш   |  | Ш            |   |
|              | 49   |                  |          |              |          |  | L.,  | $ldsymbol{ld}}}}}}}}}$ |  |              |   |
|              | 50   | - 1              |          |              |          |  | ı  |   | ıï   |              | 1 |

| Cla          | im                    | Γ        |              |  |          | Dat  | e            |          |          |  | 1 | Cla      | im       | Г        |          |          |            | Dat          | е.       |          |          |          |
|--------------|-----------------------|----------|--------------|--|----------|--|--------------|----------|----------|--|---|----------|----------|----------|----------|----------|------------|--------------|----------|----------|----------|----------|
| Ť            |                       |          | 1            | Т  | Т        | T  | Ť            |          |          | Г  | 1 | <u></u>  |          | 1        |          | Г        | Т          | Ţ <u></u> :  | Ť        | Г        | г        | Γ        |
| ,            | Original              | 2        | ł            | 1  | 1        |  | 1            |          | 1        | 1  |   | <u></u>  | Original |          |          |          |            | 1            |          |          |          | l        |
|              | ġ                     | 15       | 1            |  |          | 1  | 1            |          |          |  | 1 | Final    | igi      |          |          |          |            | ١            |          | 1        |          |          |
| ١.           | ō                     | 13       | 1            |  | 1        | 1  | 1            | 1        | ı        | 1  | 1 | "        | ō        |          | l        |          |            | l            |          | l        |          |          |
| +            |                       | ۲,       | $\vdash$     | -  |          | $\vdash$   | ₽-           | -        | -        |  | 1 | <b> </b> |          | $\vdash$ | _        | <u> </u> | <u> </u>   | <u> </u>     | <u> </u> | <u> </u> | ⊢        | ⊢        |
| 4            | 2                     | _        | ├-           | ↓_   | <u> </u> | ┖  | _            | L        | _        | ┞  | 4 |          | 51<br>52 | _        | _        | _        | L          | <u> </u>     | _        | L        |          |          |
| 4            | 2                     | _        | 1_           | _  | L        | _  | ┖            | _        | L        | <u> </u>   | 1 |          | 52       |          | <u> </u> | _        | L          |              | L        | L        |          |          |
| _            | _3_                   | _        | 丄            | <u> </u>   | L        | _  | _            | L        | L        | L  |   |          | 53       |          |          |          | L          | _            | L        | _        |          |          |
| $\perp$      | 4                     |          | L            |  |          | L  | L            | L        |          | L  |   |          | 54       |          |          |          |            |              |          |          |          |          |
|              | 3<br>4<br>5<br>6<br>7 | _        | L            |  |          |  |              | L        |          | •  |   |          | 55       |          |          |          |            |              |          |          |          |          |
|              | 6                     | _        |              | i T  | Г        |  | Γ            |          |          | Π  | ] |          | 56       |          |          |          |            | Г            |          |          |          |          |
| П            | 7                     | _        |              | Г  |          |  | Г            | П        | П        |  | 1 |          | 57       |          |          |          |            |              |          | Г        |          |          |
| П            | 8                     |          |              |  |          |  |              | П        |          | П  |   |          | 58       |          |          |          |            |              |          |          |          |          |
| T            | 9                     | _        |              |  |          | $\vdash$   |              |          |          |  | 1 |          | 59       |          |          |          | _          |              |          | _        |          |          |
| 寸            | 10                    | _        |              |  |          | T  | ✝            |          | -        | $\vdash$   | 1 |          | 60       | П        |          | -        |            | _            |          |          |          |          |
| +            | 11                    |          | _            | -  | $\vdash$ | <del>                                     </del> | 1            | $\vdash$ | Ι-       | $\vdash$   | i |          | 61       | Н        | _        |          | $\vdash$   | $\vdash$     | _        | ┝        | $\vdash$ |          |
| +            | 12                    |          | -            | ╁  | ╁        | -  | -            | ⊢        | -        | ╌  | 1 |          | 62       | Н        |          | _        | -          | $\vdash$     | -        | ┝        | Н        | H        |
| +            | 12<br>13              | _        | ┝            | -  | -        | ┢  | ┢            | H        | -        | ⊢  | 1 |          | 63       | _        | _        | _        |            | <del> </del> | _        | -        | Н        | Н        |
| +            | 1.4                   |          | -            | ⊢  | -        | ├  | ├            | -        |          | ⊢  | { |          | 03       |          | _        | <u> </u> | _          | ⊢            | -        | _        | $\vdash$ | Н        |
| +            | 14                    | $\vdash$ | -            | -  | ├        | ⊢  | ⊢            | ⊢        | ├-       | -  | - |          | 64       |          |          |          | <u> </u>   | <u> </u>     | _        | _        | $\vdash$ | Н        |
| -            | 15                    | =        | <u> </u>     | ├-   | -        | ├  | <u> </u>     | <u> </u> | <u> </u> | -  |   |          | 65       | Щ        |          | _        | L          | _            |          | _        | $\vdash$ | _        |
| 4            | 16                    | $\equiv$ |              | ┡  | ┡        | ╙  | ⊢            | <u> </u> | <u> </u> | ļ  |   |          | 66       |          |          |          | lacksquare |              |          | L.       | Ш        |          |
| 4            | 17                    | =        | L            | <u> </u>   | <u> </u> | _  | _            | Ļ        | <u> </u> | <u>Ļ</u>   | 1 |          | 67       |          |          |          | _          | _            |          |          | Ш        |          |
| 4            | 18                    | ~        | _            | _  | ┖        | _  | _            | L        | _        | L_   | 1 |          | 68       |          |          |          |            |              |          |          | Ш        |          |
| _            | 19                    | /        | _            | L  | _        | L  |              |          |          |  | 1 |          | 69       |          |          |          |            |              |          |          |          |          |
| $\perp$      | 20                    | ~        |              |  |          | L  | L            | L        |          |  |   |          | 70       |          |          |          |            |              |          |          |          |          |
|              | 21                    | 7        |              |  | [        |  |              |          | <u></u>  |  |   |          | 71       |          |          |          |            |              |          |          |          |          |
|              | 22                    | 1        |              |  |          |  |              |          | Γ        |  |   |          | 72       |          |          |          |            |              |          |          |          |          |
| Т            | 23                    | 1        |              | Г  |          |  | T-           |          |          |  | 1 |          | 73       |          |          |          |            |              |          |          |          |          |
|              | 24                    | 7        |              |  |          |  | Г            |          |          |  | 1 |          | 74       |          |          |          |            |              |          |          |          |          |
| 1            | 25                    | /        |              | <del>                                     </del> | _        | Т  | Т            |          |          |  | 1 |          | 75       |          | -        |          |            |              |          |          |          | _        |
| +            | 26                    | 1        | -            | ┢  | $\vdash$ | -  | ┢            | $\vdash$ | -        | _  | i |          | 76       |          | -        |          | -          |              |          |          |          | $\neg$   |
| $\top$       | 27                    | V        | _            | ┪  | $\vdash$ | -  | $\vdash$     | $\vdash$ | -        | ┢  | 1 |          | 77       |          | $\dashv$ | -        | -          |              | _        | -        | $\vdash$ | -        |
| +            | 28                    |          | ┝            | ┈  | ⊢        | $\vdash$   | <del> </del> | $\vdash$ | H        | <del>                                     </del> |   |          | 78       | -        |          |          | $\vdash$   | -            |          |          | $\vdash$ | 닉        |
| +            | 29                    | 1        |              | ├  | ⊢        | -  | -            | ⊢        | -        | -  |   |          | 79       |          | -        |          |            |              |          |          | $\vdash$ |          |
| +            | 29                    | 1        | ŀ            | ⊢  | ⊢        | -  | <u> </u>     | <u> </u> | ├-       | <u> </u>   |   |          | 79       |          | -        |          | _          | Ш            |          |          | $\dashv$ |          |
| +            | 30                    | V        | <u> </u>     | <u> </u>   | ├—       | <u> </u>   | <u> </u>     | <u> </u> | ┝        | _  |   |          | 80       | _        | _        |          |            |              | _        |          | $\dashv$ |          |
| 4            | 31                    | V        |              | <u> </u>   | <u> </u> | L_   | _            | <u> </u> | _        | _  |   |          | 81       | _        | _        |          | Щ          |              |          |          |          | _        |
| 4            | 32                    | 1        | <u> </u>     | <u> </u>   | ┞        | _  | _            | <u> </u> | <u> </u> | L_   |   |          | 82       | _        |          |          |            |              |          |          | $\Box$   |          |
| $\downarrow$ | 33                    | 1        |              |  |          |  | _            |          |          |  |   |          | 83       | $\perp$  | _        |          |            |              |          |          |          |          |
|              | 34                    | Ļ        | _            |  | <u>_</u> |  |              | L_       |          |  |   |          | 84       |          |          | ]        |            |              |          | ]        |          |          |
| $\perp$      | 35                    | ./       | L_           |  | L        | L  |              |          |          |  |   |          | 85       | I        | ]        |          |            |              |          |          |          |          |
|              | 36                    | 1        |              |  | L        | L  | L            | L        |          |  |   |          | 86       | T        |          |          |            |              |          |          | _7       | ╗        |
|              | 37                    |          |              |  |          |  |              |          |          |  |   |          | 87       | $\neg$   |          |          |            |              |          |          | $\neg$   |          |
| J            | 38                    |          |              |  |          |  |              |          |          |  |   |          | 88       |          |          |          |            |              |          |          | ヿ        |          |
| T            | 39                    |          |              |  |          |  |              |          | П        |  |   | $\neg$   | 89       | $\neg$   |          |          |            | $\neg$       | $\neg$   | $\neg$   | $\neg$   |          |
| 1            | 40                    |          |              |  |          |  | П            |          | $\Box$   |  |   |          | 90       |          | $\dashv$ | $\neg$   | $\dashv$   | $\dashv$     |          | _        | $\dashv$ | $\dashv$ |
|              | 41                    |          |              |  | $\vdash$ |  | Н            |          | $\dashv$ |  |   |          | 91       | $\dashv$ |          | $\dashv$ | -          | $\dashv$     | $\neg$   |          | $\dashv$ | $\dashv$ |
| $\top$       | 42                    |          |              |  | Н        |  | Н            | $\dashv$ | $\dashv$ |  |   |          | 92       | $\dashv$ | $\dashv$ |          | -          | $\dashv$     |          | $\dashv$ | -        | $\dashv$ |
|              | 43                    |          | _            | -  | Н        |  | Н            | $\vdash$ | $\vdash$ | -  |   |          | 93       |          | $\dashv$ |          | -          |              |          | $\dashv$ | $\dashv$ | $\dashv$ |
|              | 44                    | -        | <del>.</del> | -  | $\vdash$ | -  | $\vdash$     | $\vdash$ | $\vdash$ | _  | } |          |          | $\dashv$ | ᅱ        |          |            | $\dashv$     |          | -        | $\dashv$ | {        |
| +            | 45                    |          |              |  |          | -  | $\vdash$     |          |          |  | } |          | 94       |          | -        | _        |            |              |          | -        | $\dashv$ |          |
|              |                       | $\vdash$ | _            | -  | $\vdash$ |  | Н            | -        |          |  | } |          | 95       |          |          |          | -          | -            |          | -        | $\dashv$ | $\dashv$ |
|              | 46                    |          |              | Щ  | $\vdash$ | _  | Ш            |          |          | _  |   |          | 96       | _        | _        | _        |            |              |          | _        | _        | _        |
|              | 47                    |          | _            | Щ  | Щ        |  | $\Box$       |          | $\dashv$ | _  |   |          | 97       | _        | _        | _        | _          |              | _        | _        | _        | _        |
|              | 48                    |          |              | $\Box$   | $\Box$   | _  |              |          | _        |  |   |          | 98       | _        | _        | _        | _          | _            | _        | _        | _        | _        |
|              | 49                    |          |              | Ш  |          |  |              |          | $\Box$   |  |   |          | 99       | _        | _        |          |            |              | $\perp$  |          | ᆚ        | $\Box$   |
| L            | 50                    |          |              |  |          |  |              |          |          | _  | l |          | 100      | $\perp$  |          | $\perp$  |            |              |          | $\Box$   | $\perp$  |          |
|              |                       |          |              |  |          |  |              |          |          |  |   |          |          |          |          |          |            | _            |          |          |          |          |

| Cli             | aim                             | $\vdash$ | 1  | _             | _  | Dat      | e_       | _            | _  |                 |
|-----------------|---------------------------------|----------|--|---------------|--|----------|----------|--------------|--|-----------------|
| Final           | Original                        |          |  |               |  |          |          |              |  |                 |
|                 | 101                             |          | T  | T             |  | $\vdash$ |          |              | Т  |                 |
|                 | 101<br>102                      |          | $\vdash$   |               |  |          |          |              |  |                 |
|                 | 103                             |          |  |               |  |          |          |              |  |                 |
|                 | 104                             | L        |  |               |  |          |          |              | L  |                 |
|                 | 105                             | L.       | ╙  | ┺             | 丄  | <u> </u> |          | _            | L  |                 |
|                 | 106                             | _        | _  | ┞-            | <del> </del>                                     | ╙        | L        | <u> </u>     | L  | _               |
| $\vdash$        | 107                             | _        | -  | -             |  | ╀        | ├        | ┡            | <del> </del> _                                   | <u> </u>        |
|                 | 108<br>109                      | -        | $\vdash$   | ╁             | -  | ├        | ⊢        | ┝            | <b> </b> -                                       | <u> </u>        |
|                 | 110                             | ┝        | ╁  | $\vdash$      | ╁  | ├        | ├        | -            | ├  | ├               |
| -               | 111                             | H        | <del>                                     </del> | $\vdash$      | +-   | $\vdash$ | -        | ┢╌           | $\vdash$   | <del> </del>    |
| $\vdash$        | 112                             |          | ┢  | 1             | $t^{-}$  | 1        | $\vdash$ |              | <del>                                     </del> | Н               |
|                 | 112<br>113                      |          | Г  |               |  |          | Г        | Τ            | 1  | Т               |
|                 | 114                             |          | L  | Γ             |  |          |          |              |  |                 |
|                 | 115                             |          |  |               |  |          |          |              |  |                 |
| $\perp$         | 116                             | Ĺ        | L  | L             | L  |          |          |              |  |                 |
|                 | 117                             | <u> </u> | _  | _             | <u> </u>   | _        | L        | L            | <u>L</u>   | $oxed{oxed}$    |
|                 | 118                             | <u> </u> | _  | <u> </u>      | <u> </u>   | ╙        | _        | <u> </u>     | <u> </u>   |                 |
| $\vdash \vdash$ | 119                             | _        |  | -             | -  | ├_       | ⊢        | ⊢            | ├  | L.              |
|                 | 120<br>121                      | <u> </u> | _  | ├             | ├  | ⊬        | <u> </u> | H            | <b>.</b>   | -               |
| $\vdash$        | 122                             | H        | ┢  | $\vdash$      | ├  | ┝        | -        | ⊢            | ├  |                 |
|                 | 123                             | $\vdash$ | ⊢  | ┢             | ╁─   | ┢        | $\vdash$ | $\vdash$     | ├  | Н               |
|                 | 124                             | -        | $\vdash$   | ┢             | ╁  | ┢        | $\vdash$ | -            | ╁─   | Н               |
|                 | 125                             |          |  | -             | ╁  |          | $\vdash$ | $\vdash$     | ╁  | Н               |
|                 | 126                             |          |  | <u> </u>      | 1  |          |          |              | 1  | Н               |
|                 | 123<br>124<br>125<br>126<br>127 |          |  |               |  |          |          |              |  |                 |
|                 | 128<br>129                      |          |  |               |  |          |          |              |  |                 |
|                 | 129                             |          |  |               |  |          |          |              |  |                 |
|                 | 130                             |          | _  |               | L  | L.       |          |              |  | Ш               |
|                 | 131<br>132                      | _        | L.   | 匚             | _  | _        | _        |              | ļ  |                 |
| $\vdash$        | 132                             |          | _  | ┡             | <u> </u>   | _        |          | _            | ļ.   | Ш               |
| -               | 133                             | _        | -  | <u> </u>      | -  | -        | <u> </u> | _            | ├  | dash            |
|                 | 134<br>135                      |          | -  | -             | ⊢  | -        | _        | <del> </del> | -  | $\vdash$        |
|                 | 136                             | _        | $\vdash$   | ┝             |  | H        | <u> </u> | $\vdash$     | $\vdash$   | $\vdash$        |
| $\vdash$        | 137                             |          |  | $\vdash$      | <del>                                     </del> |          |          | -            | $\vdash$   | $\vdash \vdash$ |
|                 | 138                             |          | _  | Н             | <del>                                     </del> |          |          |              | -  | Н               |
|                 | 139                             |          |  | Г             |  |          |          |              |  | $\vdash$        |
|                 | 140                             |          |  |               |  |          |          |              |  |                 |
|                 | 141                             |          |  |               |  |          |          |              |  |                 |
|                 | 142                             |          |  |               |  |          |          |              |  |                 |
| $\sqcup$        | 143                             | _        |  |               |  |          |          |              |  |                 |
|                 | 144                             |          | _  | _             | $\square$  | Ш        |          |              | Ш  | Ш               |
|                 | 145                             |          | _  | _             | <u> </u>   | $\vdash$ |          | _            | $\vdash$   | $\sqcup$        |
|                 | 146<br>147                      | _        | _  | _             | $\vdash$   | $\vdash$ | _        | _            | $\vdash$   | $\dashv$        |
|                 | 148                             | _        | _  | _             | -  | $\dashv$ |          | -            | -  | 닉               |
|                 | 149                             | _        |  | $\vdash$      | $\vdash$   |          | Н        |              | $\vdash$   | $\dashv$        |
|                 | 150                             |          | -  |               | $\vdash$   | $\vdash$ | $\dashv$ |              | $\dashv$   | $\dashv$        |
|                 | .00                             |          |  | $\overline{}$ |  |          |          |              |  |                 |